

I CLAIM:

1 1. An assembly for electrically interconnecting two
2 parts relatively rotatable about an axis, the assembly
3 comprising:
4 an elongated multiconductor flat ribbon having a pair
5 of ends and wound in a spiral centered on the axis, one of the
6 ends being secured to one of the parts and the other of the ends
7 being secured to the other part.

1 2. The electrical connecting assembly defined in claim
2 1 wherein the one end is secured to the one part inside the
3 spiral and the other end is outside the spiral.

1 3. The electrical connecting assembly defined in claim
2 1 wherein the ribbon has a width dimension extending generally
3 parallel to the axis.

1 4. The electrical connecting assembly defined in claim
2 3 wherein the flat ribbon is comprised of a flat elongated tape
3 and a plurality of parallel conductive traces on the tape
4 extending between the ends.

1 5. The electrical connecting assembly defined in claim
2 4 wherein the traces are flat strips with a width dimension
3 parallel to the width dimension of the tape.

1 6. The electrical connecting assembly defined in claim
2 4 wherein the tape is nonconductive.

1 7. The electrical connecting assembly defined in claim
2 4 wherein the tape is flexible.

1 8. The electrical connecting assembly defined in claim
2 4 wherein the spiral is generally cylindrical and centered on the
3 axis.

1 9. The electrical connecting assembly defined in claim
2 4, further comprising
3 respective rigid circuit boards at the ends having
4 contact pads connected to the traces.

1 10. The electrical connecting assembly defined in
2 claim 4 wherein the tape is L-shaped and has one leg forming the
3 spiral and an other leg extending axially from the spiral.

1 11. The electrical connecting assembly defined in
2 claim 10 wherein the other leg is formed with a loop projecting
3 transversely of the axis.

1 12. The electrical connecting assembly defined in
2 claim 1 wherein the one part is a bonding head.